

EXHIBIT E

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23 UNITED STATES DISTRICT COURT
24 CENTRAL DISTRICT OF CALIFORNIA

25 NEUROGRAFIX, a California
26 corporation; WASHINGTON
27 RESEARCH FOUNDATION, a not-for-
28 profit Washington corporation,

Plaintiffs,

vs.

SIEMENS MEDICAL SOLUTIONS
USA, INC., a Delaware corporation; and
SIEMENS AKTIENGESELLSCHAFT,
a German Corporation,

Defendants.

Case No. 10-CV-1990 MRP (RZx)

[Assigned to The Honorable Mariana
R. Pfäelzer]

**JOINT CLAIM CONSTRUCTION
AND PREHEARING STATEMENT**

First Amended Complaint Filed:
July 30, 2010

RUSS, AUGUST & KABAT

Pursuant to the Court's November 9, 2010 Order and Northern District of California Local Patent Rule 4-3, the parties hereby submit their Joint Claim Construction and Prehearing Statement.

I. AGREED AND DISPUTED TERMS.

The attached chart details the disputed and agreed terms. The first chart contains the 10 most significant and disputed terms to be construed, and also identifies the terms for which Siemens contends claim construction may be dispositive of certain claims in the patent. The second chart contains the remaining disputed terms. The third chart contains the agreed terms and constructions.

II. ANTICIPATED LENGTH OF HEARING.

The parties agree that the anticipated length of the Claim Construction Hearing will be 4 hours.

III. LIVE TESTIMONY.

At this time, the parties do not propose to call any witnesses at the Claim Construction Hearing.

Dated: February 2, 2011

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AKTIENGESELLSCHAFT

CERTIFICATE OF SERVICE

I certify that counsel of record who are deemed to have consented to electronic service are being served on February 2, 2011, with a copy of this document via the Court's CM/ECF systems. Any other counsel will be served by electronic mail, facsimile, overnight delivery and/or First Class Mail on this date.

/s/ Andrew D. Weiss
Andrew D. Weiss

RUSS, AUGUST & KABAT

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EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|----|--|---------------------|--|---|
| 1. | <p>“controlling the performance of steps (a), (b), and (c) to enhance . . . the selectivity of said nerve”</p> <p>[Siemens contends construction of this term may be dispositive of the claims in which it appears and their dependents]</p> | 1, 3, 7, 11, 12, 18 | <p>Term not amenable to construction.</p> <p>Evidentiary support: '360 Patent Figs. 7, 9-11; 3:60-64; 6:38-64; 9:55-10:16; 11:50-29:12; 29:24-30:5; NEURO205-213; 218-229; 238; 250; 268-273; 278-287; 296; 310-315; 321-327; 336; 347-352; 358-364; 371; 382-387; 390-395; 402; 411-414; 418-425; 432; 440-442; 522-527; 530-532; 534-540; 568-575; 586-587; 595-601; 603; 610; 627-629; 631; 6569; SMSSAG311; 404; 47543-4; 47577; 48283-5; 51118-9; 51124-5; 51135-6; 51145-7; 51151-2; 51164-6; 51173; 51179; 51305-504; 51711-3; 51717-8; 51723-5; 51728-30; 51732; 51736-44; 51746; 51748-54; 51762-3; 51774-5; 51793-5; 51803-7; 51808-9; 51813-4; 51823-4; 51828-30; 51835-9; 51840-4; 51850-3; 51856-7; 51858-9; 51864-5; 51870-4; 51881-2; 51886-7; 51892-903; 51904-6; 51914-22; 51923-6; 51927-39; 51951-2; 51955; 51958; 52025-33; 52042; 52045-6; 52280; 52459-60; 52819-22.</p> | <p>No construction necessary;</p> <p>or</p> <p>Controlling the performance of steps (a), (b), and (c) to enhance the ability to distinguish nerve from surrounding tissue</p> <p>Supporting Evidence Ordinary meaning;</p> <p>'360 patent at Abstract, Figs. 11A-11F, 5:61-64, 6:34-7:7, 9:59-10:7, 12:21-30, 13:41-48, 14:25-31, 17:34-48, 17:66-18:7, 22:33-35, 22:58-65, 23:28-35, 24:9-12, 27:6-11, 27:57-64, 28:27-29:12, 29:42-52, 30:51-54; and</p> <p>'360 patent file history, November 17, 1994 Amendment at 19.</p> |
| 2. | <p>“a conspicuity of the nerve that is at least 1.1 times that of [the] / [any adjacent] non-neural tissue”</p> | 1, 3, 7, 11, 12, 18 | <p>Term not amenable to construction.</p> <p>Evidentiary support: '360 Patent Figs. 7, 9-11; 3:60-64; 6:38-64; 9:55-</p> | <p>contrast (in, for example, intensity and color) between the nerve and [the]/[any adjacent] non-neural tissue is at least 1.1 times</p> |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|--|--|---------------|---|--|
| | [Siemens contends construction of this term may be dispositive of the claims in which it appears and their dependents] | | 10:16; 11:50-29:12; 29:24-30:5; NEURO205-213; 218-229; 238; 250; 268-273; 278-287; 296; 310-315; 321-327; 336; 347-352; 358-364; 371; 382-387; 390-395; 402; 411-414; 418-425; 432; 440-442; 522-527; 530-532; 534-540; 568-575; 586-587; 595-601; 603; 610; 627-629; 631; 6569; SMSSAG311; 404; 47543-4; 47577; 48283-5; 51118-9; 51124-5; 51135-6; 51145-7; 51151-2; 51164-6; 51173; 51179; 51305-504; 51711-3; 51717-8; 51723-5; 51728-30; 51732; 51736-44; 51746; 51748-54; 51762-3; 51774-5; 51793-5; 51803-7; 51808-9; 51813-4; 51823-4; 51828-30; 51835-9; 51840-4; 51850-3; 51856-7; 51858-9; 51864-5; 51870-4; 51881-2; 51886-7; 51892-903; 51904-6; 51914-22; 51923-6; 51927-39; 51951-2; 51955; 51958; 52025-33; 52042; 52045-6; 52280; 52459-60; 52819-22; testimony and report of Dr. Michael Moseley and documents cited therein. | <p>Supporting Evidence Ordinary meaning;</p> <p>'360 patent at Figs. 14-18, 20-22claims 1, 18, 19, 5:66-7:15, 8:43-45, 11:53-59, 12:21-31, 12:58-13:6, 14:53-15:57, 17:17-19:27, 22:28-24:61, 27:4-29:12</p> <p>M.E. Moseley et al., <i>Diffusion-Weighted MR Imaging of Acute Stroke: Correlation with T2-Weighted and Magnetic Susceptibility-Enhanced MR Imaging in Cats</i>, ANJR 11:423-29 (May/June 1990)</p> <p>M.E. Moseley et al., <i>Comparison of Gd- and Dy-Chelates for T2* Contrast-Enhanced Imaging*</i>, Magnetic Resonance In Medicine 22, 259-64 (1991);</p> <p>M.E. Moseley et al., <i>Early Detection of Regional Cerebral Ischemia in Cats: Comparison of Diffusion- and T2-Weighted MRI and Spectroscopy</i>, Magnetic Resonance in Medicine 14:330-346 (1990);</p> |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|----|---|----------------|--|--|
| | | | | <p>D.D. Stark, M.E. Moseley et al., <i>Magnetic Resonance Imaging and Spectroscopy of Hepatic Iron Overload</i>, Radiology 154:137-142 (1985);</p> <p>E.J. Borokowski et al., The HarperCollins Dictionary of Mathematics at 39, 369, 371, 373, 383; and</p> <p>Rebuttal Expert Report of Dr. Aaron Filler and documents cited therein.</p> |
| 3. | "vector processing" | 11, 22, 36, 55 | <p>Calculating the ratio of D_{pl}/D_{pr} or calculating data according to equation 3, 4, 5, and/or 6.</p> <p>Evidentiary support: '360 Patent Figs. 16, 17; 8:6-9; 17:12-16; 19:28-21:34; NEURO223; SMSSAG51757; 51770; 52104.</p> | <p>mathematical analysis of the data set to determine direction and magnitude of a given point (or voxel)</p> <p>Supporting Evidence</p> <p>'360 patent at 15:67-16:4, 17:12-16, 19:27-22:27;</p> <p>7/31/92 Provisional at 21;</p> <p>D.E. Stevenson et al., <i>A Vector C and Fortran Compiler for the FPS T-Series: Experiences with compiling to occam I</i>, Software-Practice and Experience, Vol. 22(5), 371-390 (May 1992);</p> |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|----|---|---------------|---|--|
| | | | | C. Wetherell, <i>Design Considerations for Array Processing Languages</i> , Software-Practice and Experience, Vol. 10, 265-271 (1980). |
| 4. | <p>112 ¶ 6 term:</p> <p>Claim 54: “processor means coupled to said excitation and output arrangement means for processing said outputs to generate data representative of the diffusion anisotropy of the selected structure”</p> <p>Claim 64: “processor means is further for processing said data representative of the diffusion anisotropy of the selected structure to produce a data set that describes the shape and position of the selected structure”</p> | 54, 64 | <p>Claim 54 function: Processing said outputs to generate data representative of the diffusion anisotropy of the selected structure.</p> <p>Corresponding structure for claim 54: (1) computer 72 and front-end circuit 74, or host processing system 32, programmed to perform blocks 112 through 154 from Figures 9 and 10; and (2) equivalents thereof.</p> <p>Claim 64 function: Processing said data representative of the diffusion anisotropy of the selected structure to produce a data set that describes the shape and position of the selected structure</p> <p>Corresponding structure for claim 64: (1) computer 72 and front-end circuit 74, or host processing system 32,</p> | <p>Claim 54 function: processing said outputs to generate data representative of the diffusion anisotropy of the selected structure</p> <p>Corresponding Structures for Claim 54:</p> <ol style="list-style-type: none"> 1. computer 72 and front-end circuit 74 (which the specification refers to as "processing system"); or 2. host processing system 32; and 3. their equivalents <p>Supporting evidence for Claim 54</p> <p>'360 patent at Figs. 6-11F, 2:3-3:34, 5:16-30, 6:26-7:15, 8:48-9:16, 9:42-10:16, 10:24-11:49, 11:64-12:31, 14:32-27:47, 28:27-32:53, 33:16-20;</p> <p>Howe et al., <i>Magnetic Resonance Neurography</i>, Magnetic Resonance in Medicine 328-338 (1992);</p> |

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| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|--|--|---------------|--|---|
| | | | <p>programmed to perform blocks 112 through 154 from Figures 9 and 10 and further programmed to divide the output of the subtraction process by signal information from a fat suppressed, T2-weighted spin echo sequence; and</p> <p>(2) equivalents thereof.</p> <p>Evidentiary support: '360 Patent 6:5-9; 8:48-60; 9:42-54; 9:64-10:16; 11:9-18; 11:46-49; 16:62-64; 8:6-9; 17:12-16; 19:28-22:27; 29:13-23; 30:7-14; 33:33-45; Figs. 9-10 and discussion thereof; NEURO210-11; 227; 500; 506; 516-22; 527-28; 532-34; testimony and report of Dr. Michael Moseley and documents cited therein.</p> | <p>Le Bihan et al., <i>MR Imaging of Intravoxel Incoherent Motions: Application to Diffusion and Perfusion in Neurologic Disorders</i>, Radiology 161:401-407 (1986);</p> <p>Moseley et al., <i>Anisotropy in Diffusion-Weighted MRI</i>, 19 Magnetic Resonance on Medicine 321-326 (1991); and</p> <p>Expert Report of Dr. Aaron Filler and documents cited therein.</p> <p>Claim 64 function: processing said data representative of the diffusion anisotropy of the selected structure to produce a data set that describes the shape and position of the selected structure</p> <p>Corresponding Structures for Claim 64:</p> <ol style="list-style-type: none"> 1. computer 72 and front-end circuit 74 (which the specification refers to as "processing system"); or 2. host processing system 32; and 3. their equivalents <p>Supporting evidence for Claim 64 '360 patent at Figs. 6-11F, 15B-D,</p> |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
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| | | | | 2:3-3:64, 5:16-30, 6:26-7:15, 8:48-9:16, 9:42-10:16, 10:24-11:49, 11:64-12:31, 14:32-27:47, 28:27-32:53, 33:16-20; and Expert Report of Dr. Aaron Filler and documents cited therein. |
| 5. | <p>112 ¶ 6 term:</p> <p>“processor means . . . for: i) vector processing said outputs to generate data representative of anisotropic diffusion exhibited by the selected structure in the region, regardless of the alignment of said diffusion-weighted gradients with respect to the orientation of said selected structure; and ii) processing said data representative of anisotropic diffusion to generate a data set describing the shape and position of said selected structure in the region, said data set distinguishing said selected structure from other structures in the region that do not exhibit diffusion anisotropy”</p> <p>[Siemens contends construction of this term may be dispositive of the claims in which it appears and their</p> | 55 | <p>Function: i) vector processing said outputs to generate data representative of anisotropic diffusion exhibited by the selected structure in the region, regardless of the alignment of said diffusion-weighted gradients with respect to the orientation of said selected structure; and ii) processing said data representative of anisotropic diffusion to generate a data set describing the shape and position of said selected structure in the region, said data set distinguishing said selected structure from other structures in the region that do not exhibit diffusion anisotropy.</p> <p>Corresponding structure: No corresponding structure disclosed, and term is not amenable to construction.</p> | <p>Function: i) vector processing said outputs to generate data representative of anisotropic diffusion exhibited by the selected structure in the region, regardless of the alignment of said diffusion-weighted gradients with respect to the orientation of said selected structure; and ii) processing said data representative of anisotropic diffusion to generate a data set describing the shape and position of said selected structure in the region, said data set distinguishing said selected structure from other structures in the region that do not exhibit diffusion anisotropy</p> <p>Corresponding Structures: 1. computer 72 and front-end circuit 74 (which the specification refers to as "processing system"); or 2. host processing system 32; and</p> |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
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| | dependents] | | Evidentiary support: '360 Patent 6:5-9; 8:48-60; 9:42-54; 9:64-10:16; 11:9-18; 11:46-49; 16:62-64; 8:6-9; 17:12-16; 19:28-22:27; 29:13-23; 30:7-14; 33:33-45; NEURO210-11; 227; 500; 506; 516-22; 527-28; 532-34; testimony and report of Dr. Michael Moseley and documents cited therein. | 3. their equivalents Supporting evidence '360 patent at Figs. 6-11F, 16, 17, 2:3-3:34, 5:3-30, 6:26-7:15, 8:47-9:16, 9:42-10:16, 10:24-11:49, 11:64-12:31, 14:32-23:26, 24:8-61, 26:59-63, 28:27-32:53, 33:16-20; and Expert Report of Dr. Aaron Filler and documents cited therein. |
| 6. | 112 ¶ 6 term: “said processor means is further for [calculating]/[determining] a further data set that describes the three dimensional shape and position of a segment of said [neural tissue]/[selected structure] by: analyzing the data representative of anisotropic diffusion to determine how to relate said data set and said additional data sets describing the shape and position of cross sections of said [neural tissue]/[selected structure]; and based upon the results of said analyzing the data representative of anisotropic diffusion, combining said data set and said additional data sets to generate | 58, 61 | Function: To determine how to relate said data set and said additional data sets and to generate said further data set that describes the three dimensional shape and position of the segment of said [neural tissue]/[selected structure], thereby [enabling]/[allowing] [the]/[a] three dimensional shape and position of [curved neural tissue]/[a curved structure exhibiting anisotropic diffusion]/[curved structure exhibiting anisotropic diffusion] to be described. Corresponding structure: No corresponding structure disclosed, and term is not amenable to construction. | Function: analyzing the data representative of anisotropic diffusion to determine how to relate said data set and said additional data sets describing the shape and position of cross sections of said [neural tissue]/[selected structure]; and based upon the results of said analyzing the data representative of anisotropic diffusion, combining said data set and said additional data sets to generate said further data set that describes the three dimensional shape and position of the segment of said [neural tissue]/[selected structure], thereby [allowing]/[enabling] a three dimensional shape and position of curved [neural tissue]/[structure exhibiting anisotropic diffusion] to |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|----|--|---------------|--|---|
| | <p>said further data set that describes the three dimensional shape and position of the segment of said [neural tissue]/[selected structure], thereby [allowing]/[enabling] a three dimensional shape and position of curved [neural tissue]/[structure exhibiting anisotropic diffusion] to be described”</p> <p>[Siemens contends construction of this term may be dispositive of the claims in which it appears and their dependents]</p> | | <p>Evidentiary support: ‘360 Patent 21:48-22:27; 9:64-10:16; 11:9-18; 19:39-50; 33:41-43; 36:57-59; 11:46-49; NEURO206; 227; 532-34; NEURO210-11; 227; 500; 506; 516-22; 527-28; 532-34; testimony and report of Dr. Michael Moseley and documents cited therein.</p> | <p>be described</p> <p>Corresponding structure:</p> <ol style="list-style-type: none"> 1. computer 72 and front-end circuit 74 (which the specification refers to as "processing system"); or 2. host processing system 32; and 3. their equivalents <p>Supporting evidence</p> <p>'360 patent at Figs. 6-11F, 20, 21, 23, 2:3-3:34, 5:16-30, 6:26-7:15, 8:17-28, 8:48-9:16, 9:42-10:16, 10:24-11:49, 11:64-12:31, 14:32-27:47, 28:27-32:53, 33:16-20;</p> <p>and</p> <p>Expert Report of Dr. Aaron Filler and documents cited therein.</p> |
| 7. | <p>“processing said data representative of anisotropic diffusion to generate a data set describing the shape and position of said selected structure in the region, said data set distinguishing said selected structure from other structures in the region that do not exhibit diffusion anisotropy”</p> <p>[Siemens contends construction of</p> | 36 | <p>Governed by 112 ¶6 as a step-plus-function element, and is subject to the same construction as the second functionality for the “processor means” limitation in claim 55</p> <p>Evidentiary support: ‘360 Patent 21:48-22:27; 9:64-10:16; 11:9-18; 19:39-50; 33:41-43; 36:57-59; 11:46-49; NEURO206; 227; 532-34;</p> | <p>This term is not step-plus-function element pursuant to Section 112 ¶6.</p> |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|----|--|---------------|--|---|
| | this term may be dispositive of the claims in which it appears and their dependents] | | NEURO210-11; 227; 500; 506; 516-22; 527-28; 532-34; testimony and report of Dr. Michael Moseley and documents cited therein. | |
| 8. | <p>“a further data set that describes the three dimensional shape and position of a segment of said [neural tissue]/[selected structure] is generated by steps including: analyzing the data representative of anisotropic diffusion to determine how to relate said data set and said additional data sets describing the shape and position of cross sections of said [neural tissue]/[selected structure]; and based upon the results of said step of analyzing the data representative of anisotropic diffusion, combining said data set and said additional data sets to generate said further data set that describes the three dimensional shape and position of the segment of said [neural tissue]/[selected structure], thereby enabling the three dimensional shape and position of curved [neural tissue]/[structure exhibiting anisotropic diffusion] to be described”</p> <p>[Siemens contends construction of this term may be dispositive of the</p> | 39, 46, 49 | <p>Governed by 112 ¶6 as a step-plus-function element, and is subject to the same construction as the “processor means” limitation in claims 58 and 61</p> <p>Evidentiary support: ‘360 Patent 21:48-22:27; 9:64-10:16; 11:9-18; 19:39-50; 33:41-43; 36:57-59; 11:46-49; NEURO206; 227; 532-34; NEURO210-11; 227; 500; 506; 516-22; 527-28; 532-34; testimony and report of Dr. Michael Moseley and documents cited therein.</p> | This term is not step-plus-function element pursuant to Section 112 ¶6. |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|-----|--|-----------------------------|---|--|
| | claims in which it appears and their dependents] | | | |
| 9. | “while the nerve is living in the in vivo region of the subject” | 1, 3, 7, 11, 12, 18 | <p>Siemens contends this phrase does not require construction and should be understood from its ordinary meaning. To the extent it is construed, Siemens contends it should be construed to mean “while some part of the nerve within the in vivo region of the subject is alive (that is, not dead).”</p> <p>Evidentiary support: ‘360 Patent 6: 26-32; SMSSAG51191-201; 51230-35; 51259-51261; 51756; 51789; 52014-16; 52019-21; 52070-71; 52074.</p> | <p>While all of the nerve tissue within the in vivo region is living (that is, not exhibiting necrosis)</p> <p>Supporting evidence Ordinary meaning;</p> <p>'360 patent at Fig. 22, 31:3-24</p> <p>'360 patent file history at March 14, 1994 Preliminary Amendment;</p> <p>C.L. Thomas (ed.), Taber's Cyclopedic Medical Dictionary at N-8-9 (1977); and</p> <p>D.S. Titelbaum et al., "Wallerian Degeneration and Inflammation in Rat Peripheral Nerve Detected by in Vivo MR Imaging," ANJR 10:741-746 (July/August 1989).</p> |
| 10. | “a member of the group consisting of peripheral nerves, cranial nerves numbers three through twelve, and autonomic nerves” | 1, 3, 7, 11, 12, 18, 63, 66 | <p>A nerve that is listed in Taber's Cyclopedic Medical Dictionary (17th ed. 1989) on pages 182, 463 (excluding cranial nerves 1 and 2), 1290, or 1291 and/or that is otherwise not part of the central nervous system.</p> | <p>Neural tissue that is outside the arachnoid space, not including cranial nerves one and two (smell and vision).</p> <p>Supporting evidence Ordinary meaning;</p> |

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| | Most Significant and Disputed Terms to be Construed | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|--|--|---------------|--|--|
| | | | <p>Evidentiary support: '360 Patent Figs. 20, 21, 22; 1:28-41; 6:49-55; 8:16-20; 13:29-32; 17:39-43; 23:13-16; 27:30-44; 30:22-37; 31:61-63; 32:4-45; 35:9-22; NEURO487-88; 523-25; 534; 549; 569-73; 582-83; 598; SMSSAG51186; 51191-208; 51211-16; 51230-51235; 51246-52; 51254-55; 51257-62; 51264-66; 51781-82; 51961.</p> | <p>'360 patent at 1:26-34, 5:3-5, 5:39-42;</p> <p>'360 patent file history, July 10, 1995 at 8;</p> <p>'360 patent file history, August 9, 1995 Amendment at 8, 10;</p> <p>'360 patent file history, November 7, 1994 Amendment;</p> <p>Adams et al., Principles of Neurology at 1028-32, 1038 (4th Ed. 1989);</p> <p>Duus, Topical Diagnosis in Neurology at 4-9 (1983); and</p> <p>Burchiel, Neurosurgery Clinics of North America, Vol. 2 No. 1 at 1-11 (January 1991).</p> |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Additional Disputed Terms the Parties Believe Require Construction | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|----|---|---------------|---|---|
| 1. | “analyzing . . . for information representative of fascicles” | 1, 12, 24 | Automatically, with a computer algorithm, or visually identifying and examining distinct bundles of nerve fiber. Evidentiary support: ‘360 Patent 8:17-23; Figs. 20, 21; 27:4-28:26; 8:18-22; 27:5-15; 28: 9-17; NEURO530; 6569; SMSSAG51189-90; 51220; 51256; 51971; 51974; 52064; 562067. | No construction necessary. |
| 2. | “normalized by a magnitude of said zero diffusion gradient output” | 43 | Multiplied by the image intensity produced without a diffusion-weighted gradient. Evidentiary support: ‘360 Patent 20:46-57. | standardized relative to the magnitude of the output obtained with no diffusion gradient applied Supporting evidence Ordinary meaning; and '360 patent at claim 43, 20:35-38, 20:46-21:5. |
| 3. | 112 ¶ 6 term: “excitation and output arrangement means for exposing a region to a suppression sequence of electromagnetic fields that suppresses the electromagnetic responsiveness of structures in the region that do not exhibit diffusion anisotropy, so as to increase the apparent diffusion anisotropy of structures in the region that exhibit diffusion anisotropy” | 54 | Function: Exposing a region to a suppression sequence of electromagnetic fields that suppresses the electromagnetic responsiveness of structures in the region that do not exhibit diffusion anisotropy, so as to increase the apparent diffusion anisotropy of structures in the region that exhibit diffusion anisotropy. Corresponding structure: (1) excitation coil 62, RF pulse generator | Function: exposing a region to a suppression sequence of electromagnetic fields that suppresses the electromagnetic responsiveness of structures in the region that do not exhibit diffusion anisotropy, so as to increase the apparent diffusion anisotropy of structures in the region that exhibit diffusion anisotropy, said suppression sequence of electromagnetic fields not including diffusion-weighted gradients. |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Additional Disputed Terms the Parties Believe Require Construction | Claims | Siemens' Proposed Construction | Plaintiffs' Proposed Construction |
|--|---|---------------|--|--|
| | | | <p>84, and computer 72 and front-end circuit 74 (which the specification refers to as "processing system") programmed with the CHESS, Dixon technique, or STIR pulse sequences described in column 13, line 7 through 40; or (2) equivalents thereof</p> <p>Evidentiary support: '360 patent 13:7-40; NEURO210-11; 227; 500; 506; 516-22; 527-28; 532-34; testimony and report of Dr. Michael Moseley and documents cited therein.</p> | <p>Corresponding Structures:</p> <ol style="list-style-type: none"> 1. excitation coil 62 (also referred to RF excitation field coils, tuned RF excitation coils, phased array coils and phased array RF coil system in the specification); 2. RF pulse generator 84; 3. computer 72 and front-end circuit 74 (which the specification refers to as "processing system"); and 4. their equivalents. <p>Supporting evidence</p> <p>'360 patent at Figs. 6-12, 2:3-3:34, 5:58-62, 6:26-7:15, 8:47-9:16, 9:42-10:16, 10:24-17:16, 22:28-27:47, 28:27-32:53;</p> <p>Haase et al., <i>H NMR Chemical Shift Selective (CHESS) Imaging</i>, Phys. Med. Biol. 341-344 (Vol. 30, No. 4 1985);</p> <p>and</p> <p>Expert Report of Dr. Aaron Filler and documents cited therein.</p> |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Additional but Undisputed Terms the Parties Believe Require Construction | Claims | Agreed Proposed Construction |
|----|---|--|---|
| 1. | “epineurium” | 18 | Tissue surrounding peripheral nerves |
| 2. | “perineurium” | 18 | Tissue layer surrounding the fascicles of peripheral nerves |
| 3. | “echo time” | 3, 4, 25 | Time between application of an excitation pulse and the occurrence of a resultant echo signal |
| 4. | “repetition time” | 3, 4, 5, 25 | Time between successive applications of the same pulse sequence |
| 5. | “diffusion-weighted gradient” | 7, 11, 20, 22, 36, 43, 51, 54, 55 | Pulsed magnetic field gradient |
| 6. | “suppress”, “suppresses” or “suppression” | 6, 12, 13, 23, 28, 51, 54 | Reduces the influence of |
| 7. | “diffusion anisotropy” or “anisotropic diffusion” | 11, 22, 36, 39, 40, 41, 46, 47, 49, 50, 51, 52, 54, 55, 58, 59, 61, 62, 64 | Greater water mobility in some directions compared to others |
| 8. | “effective vector” | 41, 43, 44, 42, 47, 50, 59, 62 | Direction and magnitude that represents the data at a given point (or voxel) |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Additional but Undisputed Terms the Parties Believe Require Construction | Claims | Agreed Proposed Construction |
|-----|---|---|--|
| 9. | “selected” | 36, 37, 49, 50, 51, 52, 54, 55, 61, 62, 64 | Chosen in preference to another or others. |
| 10. | “a combination of echo time and repetition time that exploits a characteristic spin-spin relaxation coefficient of peripheral nerves cranial nerves numbers three through twelve, and autonomic nerves, [wherein] said spin-spin relaxation coefficient [is] / [of these nerves being] substantially longer than that of other surrounding tissue” | 3, 25 | A combination of echo time and repetition time that is designed to take advantage of the differences in T2 values in the nerve compared to surrounding tissue. This is commonly referred to as a T2-weighted sequence. |
| 11. | 112 ¶ 6 term: “polarizing field source means . . . for exposing the region to a predetermined arrangement of diffusion-weighted magnetic gradients chosen to: i) emphasize a selected structure in the region exhibiting diffusion anisotropy in a particular direction; and ii) suppress other structures in the region exhibiting diffusion anisotropy in directions different from said particular direction” | 54 | Function: Exposing the region to a predetermined arrangement of diffusion-weighted magnetic gradients chosen to: i) emphasize a selected structure in the region exhibiting diffusion anisotropy in a particular direction; and ii) suppress other structures in the region exhibiting diffusion anisotropy in directions different from said particular direction. Corresponding structure: (1) diffusional gradient coils and gradient pulse generator; and (2) equivalents thereof |

EXHIBIT TO JOINT CLAIM CONSTRUCTION STATEMENT

| | Additional but Undisputed Terms the Parties Believe Require Construction | Claims | Agreed Proposed Construction |
|-----|--|---------------|---|
| 12. | <p>112 ¶ 6 term:</p> <p>“polarizing field source means for exposing a region to a magnetic polarizing field including a predetermined arrangement of diffusion-weighted gradients, the region including a selected structure that exhibits diffusion anisotropy and other structures that do not exhibit diffusion anisotropy”</p> | 55 | <p>Function: Exposing a region to a magnetic polarizing field including a predetermined arrangement of diffusion-weighted gradients, the region including a selected structure that exhibits diffusion anisotropy and other structures that do not exhibit diffusion anisotropy.</p> <p>Corresponding structure: (1) diffusional gradient coils and gradient pulse generator; and (2) equivalents thereof</p> |
| 13. | <p>112 ¶ 6 term:</p> <p>“excitation and output arrangement means positioned near said polarizing field source means for: i) exposing the region to an electromagnetic excitation field; and ii) for each of said diffusion-weighted gradients, sensing a resonant response of the region to the excitation field and the polarizing field including the diffusion-weighted gradient and producing an output indicative of the resonant response”</p> | 55 | <p>Function: i) exposing the region to an electromagnetic excitation field; and ii) for each of said diffusion-weighted gradients, sensing a resonant response of the region to the excitation field and the polarizing field including the diffusion-weighted gradient and producing an output indicative of the resonant response</p> <p>Corresponding structure: (1) excitation field coils and RF pulse generator; or (2) excitation field coils, return field coils, and RF pulse generator; and (3) equivalents thereof</p> |